

Docket AUS9-2001-0157-US1

Appl. No.: 09/875,955

Filed: June 7, 2001

1. (currently amended) A method for scrolling comprising the steps of:

- a) generating a window, for displaying information and scrolling through the information responsive to receiving a scrolling command; and
- b) ~~enabling scrolling the window by a fixed step size responsive to a user selection of;~~
~~either i) a non-contextual scrolling mode and responsive to, for which a certain one of the scrolling commands; and scrolls the window by a fixed step size, or ii)~~
- c) scrolling the window by a variable step size responsive to a user selection of a context-sensitive scrolling mode ~~and responsive to, for which the same certain one of the scrolling commands, wherein the scrolls the window by a variable step size is responsive to content of the information displayed, wherein the information includes a succession of objects and in a current position the window displays a first portion of the information beginning at the top of the window and ending at the bottom of the window, and step c) includes the step of:~~
scrolling downward, wherein if in the current position of the window an object is a bottom-most one of the objects and has a bottom end shown, then the variable step size adjusts responsive to the objects so as to be of such a size that the window steps down to a next position in which the window displays a next portion of the information beginning at the top of a next object after the current bottom-most object.

2. (canceled)

3. (original) The method of claim 1, comprising the step of receiving a command for context-sensitive scrolling from a pointing input device or a discrete step input device.

4. (original) The apparatus of claim 3, wherein the discrete step input device is a keyboard, a keypad or a microphone.

5. (original) The method of claim 3, wherein the pointing input device is a mouse, a trackball, a light pen, a touch screen, a track point, or a touch pad.

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6. (currently amended) The method of claim 1, wherein for a context-sensitive scrolling command received from a pointing input device, if a commanded scrolling movement exceeds a single scrolling step size, then the window steps down multiple times through the information, pausing to display the information after each step.

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7. (original) The method of claim 6, wherein the pauses are more brief for a larger commanded scrolling movement than for a smaller scrolling movement.

8. (original) The method of claim 6, wherein the pauses are more brief for a faster commanded scrolling movement than for a slower scrolling movement.

9. (original) The method of claim 1, wherein the content to which the context-sensitive scrolling responds is: a sentence, paragraph, section, division, chapter, page, hypertext link, row, column, cell, image, pause in sound, verse, stanza, refrain, interlude, movement, chorus, act, scene, commercial, quarter, half, highlight, play, time-out or bookmark.

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10. (currently amended) A method for scrolling comprising the steps of:
generating a window, for displaying information and scrolling through the information responsive to a scrolling command, wherein in a current position the window displays a first portion of the information beginning at the top of the window and ending at the bottom of the window; ~~and~~

scrolling downward with a context-sensitive scrolling mode enabled, wherein if in the current position an object is a top-most object in the window and has a bottom-most end shown, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of a next object after the current top-most object; and

scrolling downward with a context-sensitive scrolling mode enabled, wherein if in the current position the top-most object is cut off at the bottom of the window and has a bottom-most sub-object, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of the current bottom-most sub-object.

11. (original) The method of claim 10 wherein the current top-most object has a certain sub-object that is a bottom-most sub-object shown in the current position of the window, the method comprising the step of:

scrolling downward with a context-sensitive scrolling mode enabled, wherein if in the current position the top-most object is cut off at the bottom of the window and its bottom-most sub-object has a bottom-most end shown, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of a next sub-object after the current bottom-most sub-object.

12. (original) The method of claim 10, comprising the step of receiving a command for context-sensitive scrolling from a pointing input device or a discrete step input device.

13. (original) The method of claim 12, wherein the pointing input device is a mouse, a trackball, a light pen, a touch screen, a track point or a touch pad.

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14. (original) The apparatus of claim 12, wherein the discrete step input device is a keyboard, a keypad or a microphone.

15. (currently amended) The method of claim 10, wherein for a context-sensitive scrolling command received from a pointing input device, if a commanded scrolling movement exceeds a single scrolling step size, then the window steps down multiple times through the information, pausing to display the information after each step.

A 16. (original) The method of claim 15, wherein the pauses are more brief for a larger commanded scrolling movement than for a smaller scrolling movement.

17. (original) The method of claim 15, wherein the pauses are more brief for a faster commanded scrolling movement than for a slower scrolling movement.

18. (original) The method of claim 10, wherein the content to which the context-sensitive scrolling responds is: a sentence, paragraph, section, division, chapter, page, hypertext link, row, column, cell, image, pause in sound, verse, stanza, refrain, interlude, movement, chorus, act, scene, commercial, quarter, half, highlight, play, time-out or bookmark.

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19. (currently amended) An apparatus for scrolling information on a display device, the apparatus comprising:

a processor;

a display device connected to the processor;

a user input device connected to the processor; and

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a storage device connected to the processor, wherein the storage device is for storing a program for controlling the processor, and the processor is operative with the program to generate a window; for displaying information and scrolling through the information responsive to receiving a scrolling command, and the processor is operative with the program to scroll the window by a fixed step size enable, responsive to a user selection of, either i) a non-contextual scrolling mode and responsive to, for which a certain one of the scrolling commands and to scrolls the window by a fixed step size, or ii) scroll the window by a variable step size responsive to a user selection of a context-sensitive scrolling mode and responsive to, for which the same certain one of the scrolling commands, wherein the scrolls the window by a variable step size is responsive to content of the information displayed, wherein the information includes a succession of objects and in a current position the window displays a first portion of the information beginning at the top of the window and ending at the bottom of the window, and wherein the processor is operative with the program in the context-sensitive scrolling mode to scroll downward, wherein if in the current position of the window an object is a bottom-most one of the objects and has a bottom end shown, then the variable step size adjusts responsive to the objects so as to be of such a size that the window steps down to a next position in which the window displays a next portion of the information beginning at the top of a next object after the current bottom-most object.

20. (canceled)

21. (currently amended) The apparatus of claim 19, ~~wherein in a current position the window displays a first portion of the information beginning at the top of the widow and ending at the bottom of the window, and wherein~~ with the context-sensitive scrolling mode enabled the processor is operative with the program to do the following: scroll downward with a

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~~context-sensitive scrolling mode enabled, wherein if in the current position an object is a top-most object in the window and has a bottom-most end shown, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of a next object after the current top-most object, and scroll downward with a context-sensitive scrolling mode enabled, scroll downward wherein if in the current position the top-most object is cut off at the bottom of the window and has a bottom-most sub-object, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of the current bottom-most sub-object.~~

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22. (original) The apparatus of claim 21, wherein the current top-most object has a certain sub-object that is a bottom-most sub-object shown in the current position of the window, and wherein the processor is operative with the program to scroll downward with a context-sensitive scrolling mode enabled, wherein if in the current position the top-most object is cut off at the bottom of the window and its bottom-most sub-object has a bottom-most end shown, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of a next sub-object after the current bottom-most sub-object.

23. (original) The apparatus of claim 22 comprising a pointing input device for inputting the command for context-sensitive scrolling.

24. (original) The apparatus of claim 23, wherein the pointing input device is a mouse, a trackball, a light pen, a touch screen, a track point or a touch pad.

25. (original) The apparatus of claim 22 comprising a discrete step input device for inputting the command for context-sensitive scrolling.

26. (original) The apparatus of claim 25, wherein the discrete step input device is a keyboard, a keypad or a microphone.

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27. (currently amended) The apparatus of claim 22, wherein for a context-sensitive scrolling command received from a pointing input device, if a commanded scrolling movement exceeds a single scrolling step size, then the window steps down multiple times through the information, pausing to display the information after each step.

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28. (original) The apparatus of claim 22, wherein the pauses are more brief for a larger commanded scrolling movement than for a smaller scrolling movement.

29. (original) The apparatus of claim 22, wherein the pauses are more brief for a faster commanded scrolling movement than for a slower scrolling movement.

30. (original) The apparatus of claim 22, wherein the content to which the context-sensitive scrolling responds is: a sentence, paragraph, section, division, chapter, page, hypertext link, row, column, cell, image, pause in sound, verse, stanza, refrain, interlude, movement, chorus, act, scene, commercial, quarter, half, highlight, play, time-out or bookmark.

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31. (currently amended) A computer program product for scrolling comprising the steps of:

instructions for generating a window, for displaying information and scrolling through the information responsive to receiving a scrolling command; ~~and~~

instructions for scrolling the window by a fixed step size enabling, responsive to a user selection of, either i) a non-contextual scrolling mode and responsive to, for which a certain one of the scrolling commands;

instructions for scrolling the window by a variable step size responsive to a user selection of scrolls the window by a fixed step size, or ii) a context-sensitive scrolling mode and responsive to, for which the same certain one of the scrolling commands, wherein the scrolls the window by a variable step size is responsive to content of the information displayed, wherein the information includes a succession of objects and in a current position the window displays a first portion of the information beginning at the top of the window and ending at the bottom of the window; and

wherein the instructions for scrolling the window by a variable step size include:

instructions for scrolling downward, wherein if in the current position of the window an object is a bottom-most one of the objects and has a bottom end shown, then the variable step size adjusts responsive to the objects so as to be of such a size that the window steps down to a next position in which the window displays a next portion of the information beginning at the top of a next object after the current bottom-most object.

32. (canceled)

33. (currently amended) A computer program product for scrolling comprising:

instructions for generating a window, for displaying information and scrolling through the information responsive to a scrolling command, wherein in a current position the window displays a first portion of the information beginning at the top of the window and ending at the bottom of the window; ~~and~~

instructions for scrolling downward with a context-sensitive scrolling mode enabled, wherein if in the current position an object is a top-most object in the window and has a bottom-most end shown, then the window steps down to a next position wherein the window

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displays a next portion of the information beginning at the top of a next object after the current top-most object; and

instructions for scrolling downward with a context-sensitive scrolling mode enabled, wherein if in the current position the top-most object is cut off at the bottom of the window and has a bottom-most sub-object, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of the current bottom-most sub-object.

34. (original) The computer program product of claim 33, wherein the current top-most object has a certain sub-object that is a bottom-most sub-object shown in the current position of the window, the computer program product comprising:

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instructions for scrolling downward with a context-sensitive scrolling mode enabled, wherein if in the current position the top-most object is cut off at the bottom of the window and its bottom-most sub-object has a bottom-most end shown, then the window steps down to a next position wherein the window displays a next portion of the information beginning at the top of a next sub-object after the current bottom-most sub-object.

35. (original) The computer program product of claim 33, comprising instructions for receiving a command for context-sensitive scrolling from a pointing input device or a discrete step input device.

36. (original) The computer program product of claim 35, wherein the pointing input device is a mouse, a trackball, a light pen, a touch screen, a track point or a touch pad.

37. (original) The computer program product of claim 35, wherein the discrete step input device is a keyboard, a keypad or a microphone.

38. (currently amended) The computer program product of claim 33, wherein for a context-sensitive scrolling command received from a pointing input device, if a commanded

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scrolling movement exceeds a single scrolling step size, then the window steps down multiple times through the information, pausing to display the information after each step.

A 39. (original) The computer program product of claim 38, wherein the pauses are more brief for a larger commanded scrolling movement than for a smaller scrolling movement.

40. (original) The computer program product of claim 38, wherein the pauses are more brief for a faster commanded scrolling movement than for a slower scrolling movement.

41. (original) The computer program product of claim 33, wherein the content to which the context-sensitive scrolling responds is: a sentence, paragraph, section, division, chapter, page, hypertext link, row, column, cell, image, pause in sound, verse, stanza, refrain, interlude, movement, chorus, act, scene, commercial, quarter, half, highlight, play, time-out or bookmark.
